



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,400	02/02/2001	Peter Alan Craig	1905P	1427
7590	05/28/2004		EXAMINER	
SAWYER LAW GROUP LLP			NGUYEN, ALAN V	
P.O. Box 51418			ART UNIT	PAPER NUMBER
Palo Alto, CA 94303			2662	S
DATE MAILED: 05/28/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/776,400	CRAIG ET AL. <i>[Signature]</i>
	<b>Examiner</b>	<b>Art Unit</b>
	Alan Nguyen	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 May 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waite et al (US 6,434,600) in view of Hrastar et al (US 6,529,517) hereafter Waite and Hrastar, respectively.

Regarding **claims 1, 2, 4, 12, and 13** Waite discloses a method and computer readable medium (“**computer executable instructions**” **see figure 1 and col 7 lines 1-19**) for maintaining an address of a dynamically addressed router (**mail server 101 in figure 2**) in a network, the network including a server (**router and server are in mail server 101**) connected to the dynamically addressed router and a domain name server (DNS) (**Dynamic and private name server 102, 104**), comprising the steps of:

Waite discloses translating the source address of the update message to a current address of the dynamically addressed router (**mail server 102 constructs a packet of registration data containing its IP address; col 10 lines 64-67 and col 11 lines 1-14**);

Waite discloses sending the update message to a proxy residing on the DNS (**the server 101 registers the dynamic IP address with dynamic name server 102;**

**name server 102 must have an intermediary device to communicate with mail server 101; for example see col 8 lines 57-67 and col 9 lines 1-20);**

Waite discloses updating by the proxy an address of the dynamically addressed router stored in the DNS with the source address of the update message (**name server 102 maintains a dynamically updated database containing dynamic IP addresses of mail servers. The address sent is the source address of the message, which is the new address of the dynamically addresses mail server 101; col 11 lines 53-57**); and

Waite discloses changing a host address of the update message to the current address of the dynamically addressed router; and sending the update message to the DNS (**the address that is sent to the DNS is the new address of the dynamically addresses mail server 101. The address sent is an IP address, which is the host address. This value is updated into the name server 102; col 10 lines 25-64 of Waite**).

Waite, however, fails to expressly disclose where mail server 102 has a separate router to switch data and a server to update the addresses by creating an update message.

Hrastar discloses a network which switches IP packets utilizing dynamic addressing and also utilizing a separate router and server (**figure 1 elements routers 101, 106, and control and management server 125; server 125 is implemented by the network to manage and update the dynamic IP addresses; col 10 lines 5-23**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Waite's apparatus to have the mail server divided into a dedicated router and dedicated server that have separate functions, as taught by Hrastar. The motivation is a more viable and coherent system that decreases the load on the router in times of high activity. This will have an effect on the overall throughput of the system, as explained by Hrastar on column 10 lines 5-23.

Regarding **claim 3** Waite discloses the method further comprising obtaining the address of the dynamically addressed router stored in the DNS (**mail server 103 transmits a request for the dynamic IP address corresponding to the mail server 101 to the name server. name server 102 extracts the record containing the address and forwards to mail server 103; col 9 lines 64-67 and col 10 lines 1-24 of Waite**); and Waite discloses creating a message with the address of the dynamically addressed router stored in the DNS as a destination address of the message and sending the message (**mail server 103 obtains the IP address and .delivers the electronic mail to mail server 101; col 10 lines 10-24**).

Regarding **claims 5 and 11** Waite discloses a dynamically addressed router coupled to the server, wherein the dynamically addressed router translates the source address of the update message to a current address of the dynamically addressed router (**mail server 102 constructs a packet of registration data containing its IP address; col 10 lines 64-67 and col 11 lines 1-14**); and

Waite discloses a DNS, wherein the DNS comprises a proxy, wherein the proxy maintains a current address of the dynamically addressed router utilizing the source address of the update message (**the server 101 registers the dynamic IP address with dynamic name server 102; name server 102 must have an intermediary device to communicate with mail server 101; for example see col 8 lines 57-67 and col 9 lines 1-20**);

Waite, however, fails to expressly disclose where mail server 102 has a separate router to switch data and a server to update the addresses by creating an update message.

Hrastar discloses a network which switches IP packets utilizing dynamic addressing and also utilizing a separate router and server (**figure 1 elements routers 101, 106, and control and management server 125; server 125 is implemented by the network to manage and update the dynamic IP addresses; col 10 lines 5-23**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Waite's apparatus to have the mail server divided into a dedicated router and dedicated server that have separate functions, as taught by Hrastar. The motivation is a more viable and coherent system that decreases the load on the router in times of high activity. This will have an effect on the overall throughput of the system, as explained by Hrastar on column 10 lines 5-23.

Regarding **claim 7** Waite discloses where the update message generator creates an update message when an address of the dynamically addressed router changes (**After**

**the mail server 101 receives and applies the new IP address, it updates the address to the name server 102; col 16 lines 31-42 of Waite).**

Regarding **claim 8** Waite discloses where the proxy receives the update message from the dynamically addressed router and updates an address of the dynamically addressed router stored in the DNS with the source address of the update message (**name server 102 maintains a dynamically updated database containing dynamic IP addresses of mail servers. The address sent is the source address of the message, which is the new address of the dynamically addresses mail server 101; col 11 lines 53-57 of Waite**).

Regarding **claim 9** Waite discloses where in updating the address of the dynamically addressed router, the proxy changes a host address of the update message to the current address of the dynamically addressed router; and sends the update message to the DNS (**the address that is sent to the DNS is the new address of the dynamically addresses mail server 101. The address sent is an IP address, which is the host address. This value is updated into the name server 102; col 10 lines 25-64 of Waite**).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Waite in view of Hrastar, as applied to claims 1-5 above, and further in view of Orsic (US 6,147,986).

Art Unit: 2662

Regarding **claim 6** Waite discloses where in updating the address of the dynamically addressed router, the proxy changes a host address of the update message to the current address of the dynamically addressed router; and sends the update message to the DNS (**the address that is sent to the DNS is the new address of the dynamically addresses mail server 101. The address sent is an IP address, which is the host address. This value is updated into the name server 102; col 10 lines 25-64 of Waite**)

Waite, however, fails to disclose where the update message generator creates an update message at a predetermined time interval, wherein a source address of the update message is an address of the server.

Orsic discloses an IP network where nodes that have changing IP addresses are constantly being registered and updated to a DNS (**the node's address is updated at regular time intervals. The DNS is continuously informed of the node's current IP address to ensure proper routing of data; col 2 lines 60-67 and col 7 lines 10-23**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Waite's apparatus to where the IP address of the mail server 101 is also updated at regular time intervals, as taught by Orsic. The motivation is a more accurate and higher performing system that has the most up-to-date status of a system that continuously changes destination addresses, as explained by Orsic in column 2 lines 65-67.

Art Unit: 2662

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Waite in view of Hrastar, and in further view of Orsic.

Regarding **claim 10** Waite discloses a dynamically addressed router coupled to the server, wherein the dynamically addressed router translates the source address of the update message to a current address of the dynamically addressed router (**mail server 102 constructs a packet of registration data containing its IP address; The address sent is the source address of the message, which is the new address of the dynamically addresses mail server 101; col 11 lines 53-57, col 10 lines 64-67 and col 11 lines 1-14**); and

Waite discloses a DNS, wherein the DNS comprises a proxy, wherein the proxy receives the update message from the dynamically addressed router and updates an address of the dynamically addressed router stored in the DNS with the source address of the update message (**name server 102 maintains a dynamically updated database containing dynamic IP addresses of mail servers. The address sent is the source address of the message, which is the new address of the dynamically addresses mail server 101; col 11 lines 53-57**).

Waite, however, fails to expressly disclose where mail server 102 has a separate router to switch data and a server to update the addresses by creating an update message. Waite further fails to disclose where the server creates an update message at a predetermined time interval.

The disclosure of Hrastar pertaining to the limitations above has been discussed in claim 1. The disclosure of Orsic pertaining to the limitations above has been discussed in claim 6.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Waite's apparatus to have the mail server divided into a dedicated router and dedicated server that have separate functions, as taught by Hrastar. The motivation is a more viable and coherent system that decreases the load on the router in times of high activity. This will have an effect on the overall throughput of the system, as explained by Hrastar on column 10 lines 5-23. It also would have been obvious to further modify Waite's apparatus to where the IP address of the mail server 101 is also updated at regular time intervals, as taught by Orsic. The motivation is a more accurate and higher performing system that has the most up-to-date status of a system that continuously changes destination addresses, as explained by Orsic in column 2 lines 65-67.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to show the state of the art with respect to dynamic IP address management:

US Patent (6,618,757) to Babbitt et al

US Patent (6,208,656) to Hrastar et al

US Patent (6,684,243) to Euget et al

US Patent (6,434,627) to Millet et al

US Patent (6,597,700) to Golikeri et al

US Patent (6,353,614) to Borella et al

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Nguyen whose telephone number is 703-305-0369. The examiner can normally be reached on 9am-6pm ET, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AVN  
May 21, 2004



JOHN PEZZLO  
PRIMARY EXAMINER